CUMULATIVE INDEXES

CONTRIBUTING AUTHORS, VOLUMES 28-33

A

Amesz, J., 29:47-66 Amrhein, N., 28:123-32 Andersen, K., 29:263-76 Archer, R. R., 28:23-43

R

Bahr, J. T., 28:379-400 Bandurski, R. S., 33:403-30 Barber, J., 33:261-95 Bauer, W. D., 32:407-49 Beale, S. I., 29:95-120 Bedbrook, J. R., 30:593-620 Beevers, H., 30:159-93 Bell, A. A., 32:21-81 Benedict, C. R., 29:67-93 Bernstam, V. A., 29:25-46 Berry, J., 31:491-543 Bewley, J. D., 30:195-238 Biale, J. B., 29:1-23 Björkman, O., 31:491-543 Boardman, N. K., 28:355-77 Brenner, M. L., 32:511-38 Buchanan, B. B., 31:341-74 Bünning, E., 28:1-22 Butler, W. L., 29:345-78

C

Chaney, R. L., 29:511-66 Chapman, D. J., 31:639-78 Clarkson, D. T., 31:639-78 Cohen, J. D., 33:403-30 Conn, E. E., 31:433-51 Craigie, J. S., 30:41-53 Cramer, W. A., 28:133-72 Cronshaw, J., 32:465-84

D

Davies, D. D., 30:131-58 Dennis, D. T., 33:27-50 Diener, T. O., 32:313-25 Digby, J., 31:131-48

E

Elbein, A. D., 30:239-72 Ellin, R. J., 32:111-37 Elstner, E. F., 33:73-96 Evans, L. T., 32:485-509 Evert, R. F., 28:199-222

F

Farquhar, G. D., 33:317-45 Feldman, J. F., 33:583-608 Firn, R. D., 31:131-48 Fischer, R. A., 29:277-317 Flavell, R., 31:569-96 Flowers, T. J., 28:89-121 Foy, C. D., 29:511-66 French, C. S., 30:1-26

G

Galston, A. W., 32:83-110
Galun, E., 32:237-66
Gantt, E., 32:327-67
Gifford, R. M., 32:485-509
Goldsmith, M. H. M.,
28:439-78
Goodwin, T. W., 30:369-404
Graham, D., 33:347-72
Gray, M. W., 33:373-402
Green, P. B., 31:51-82
Greenway, H., 31:149-90
Grisebach, H., 30:105-30
Guerrero, M. G., 32:169-204
Gunning, B. E. S., 33:651-98

F

Hahlbrock, K., 30:105-30 Halperin, W., 29:239-62 Hanson, A. D., 33:163-203 Hanson, J. B., 31:239-98 Hardham, A. R., 33:651-98 Harding, R. W., 31:217-38 Haselkorn, R., 29:319-44 Haupt, W., 33:205-33 Heath, R. L., 31:395-431 Heber, U., 32:139-68 Hedden, P., 29:149-92 Heldt, H. W., 32:139-68 Hendricks, S. B., 28:331-54 Hitz, W. D., 33:163-203 Hotta, Y., 29:415-36 Howell, S. H., 33:609-50

J

Jacobsen, J. V., 28:537-64 Jensen, R. G., 28:379-400 Junge, W., 28:503-36

K

Kamiya, N., 32:205-36 Kochert, G., 29:461-86 Kolattukudy, P. E., 32:539-67 Kolodner, R., 30:593-620 Kowallik, W., 33:51-72 Kung, S. D., 28:401-37

I

Labavitch, J. M., 32:385-406 Lang, A., 31:1-28 Laties, G. G., 33:519-55 Lea, P. J., 28:299-329 Leaver, C. J., 33:373-402 Lieberman, M., 30:533-91 Loomis, R. S., 30:339-67 Lorimer, G. H., 32:349-83 Losada, M., 32:169-204

M

MacMillan, J., 29:149–92 Malkin, R., 33:455–79 Marné, D., 28:173–98 Marrè, E., 30:273–88 Matile, P., 29:193–213 McCandless, E. L., 30:41–53 McCarty, R. E., 30:79–104 Miernyk, J. A., 33:27–50 Millin, B. J., 28:299–329 Minchin, P. E. H., 31:191–215 Moore, T. S. Jr., 33:235–59 Moreland, D. E., 31:597–638 Munns, R., 31:149–90 Murfet, I. C., 28:253–78

N

Nasyrov, Y. S., 29:215-37 Ng. E., 30:339-67 O'Gara, F., 29:263-76 O'Leary, M. H., 33:297-315 Osmond, C. B., 29:379-414 Outlaw, W. H. Jr., 31:299-311

Padan, E., 30:27-40

Pate, J. S., 31:313-40

Patterson, B. D., 33:347-72

Phillips, D. A., 31:29-49 Phinney, B. O., 29:149-92 Pitman, M. G., 28:71-88

Possingham, J. V., 31:113-29

Poole, R. J., 29:437-60

Pratt, L. H., 33:557-82

Preston, R. D., 30:55-78

Quail, P. H., 30:425-84

Quatrano, R. S., 29:487-510

Preiss, J., 33:431-54

Raven, J. A., 30:289-311 Roberts, J. A., 33:133-62 Roughan, P. G., 33:97-132 Rubery, P. H., 32:569-96

Tran Thanh Van, K. M., 32:291-311 Troke, P. F., 28:89-121 Troughton, J. H., 31:191-215 Turner, N. C., 29:277-317

Satter, R. L., 32:83-110 Schopfer, P., 28:223-52 Sexton, R., 33:133-62 Shanmugam, K. T., 29:263-76 Sharkey, T. D., 33:317-45 Shepherd, R. J., 30:405-23 Shininger, T. L., 30:313-37 Shropshire, W. Jr., 31:217-38 Slack, C. R., 33:97-132 Smith, F. A., 30:289-311

Smith, H., 33:481-518 Solomos, T., 28:279-97 Spanswick, R. M., 32:267-89 Stern, H., 29:415-36 Stoddart, J. L., 31:83-111 Swain, T., 28:479-501

Taylorson, R. B., 28:331-54 Thomas, H., 31:83-111 Thomson, W. W., 31:375-94

Valentine, R. C., 29:263-76 van Gorkom, H. J., 29:47-66 Vega, J. M., 32:169-204 Velthuys, B. R., 31:545-67 Vennesland, B., 32:1-20 Virgin, H. I., 32:451-63

Walton, D. C., 31:453-89 Wareing, P. F., 33:1-26 Whatley, J. M., 31:375-94 White, M. C., 29:511-66 Whitmarsh, J., 28:133-72 Wilson, B. F., 28:23-43 Wiskich, J. T., 28:45-69

Y

Yeo, A. R., 28:89-121

Z

Zimmermann, U., 29:121-48

Q

Rabbinge, R., 30:339-67 Ragan, M. A., 31:639-78

CHAPTER TITLES, VOLUMES 28-33

PREFATORY CHAPTERS		
Fifty Years of Research in the Wake of		
Wilhelm Pfeffer	E. Bünning	28:1-22
On the Interface of Horticulture and Plant		
Physiology	J. B. Biale	29:1-23
Fifty Years of Photosynthesis	C. S. French	30:1-26
Some Recollections and Reflections	A. Lang	31:1-28
Recollections and Small Confessions	B. Vennesland	32:1-20
A Plant Physiological Odyssey	P. F. Wareing	33:1-26
MOLECULES AND METABOLISM		
Bioenergetics		
Photosynthetic Cytochromes	W. A. Cramer, J. Whitmarsh	28:133-72
Cyanide-Resistant Respiration in Higher		
Plants	T. Solomos	28:279-97
Delayed Fluorescence in Photosynthesis	J. Amesz, H. J. van Gorkom	28:47-66
	C. R. Benedict	29:67-93
Nature of Obligate Photoautotrophy	C. R. Benedict	29:07-93
Energy Distribution in the Photochemical		
Apparatus of Photosynthesis	W. L. Butler	29:345-78
Crassulacean Acid Metabolism: A Curiosity		
in Context	C. B. Osmond	29:379-414
Facultative Anoxygenic Photosynthesis in		
Cyanobacteria	E. Padan	30:27-40
Roles of a Coupling Factor for	E. Fauan	30.27-10
Roles of a Coupling Factor for	D. F. W.C.	20.70 104
Photophosphorylation in Chloroplasts	R. E. McCarty	30:79-104
The Central Role of Phosphoenolpyruvate in		
Plant Metabolism	D. D. Davies	30:131-58
Efficiency of Symbiotic Nitrogen Fixation in		
Legumes	D. A. Phillips	31:29-49
Role of Light in the Regulation of		
Chloroplast Enzymes	B. B. Buchanan	31:341-74
Mechanisms of Electron Flow in Photosystem	D. D. Duchanan	31.341-14
	D D W 141	21 848 67
II and Toward Photosystem I	B. R. Velthuys	31:545-67
The Chloroplast Envelope: Structure,		
Function, and Role in Leaf Metabolism	U. Heber, H. W. Heldt	32:139-68
The Carboxylation and Oxygenation of		
Ribulose 1,5-Bisphosphate: The Primary		
Events in Photosynthesis and		
Photorespiration	G. H. Lorimer	32:349-83
	G. H. Dorimer	34.547-05
The Physical State of Protochlorophyll(ide) in	** * ** *	22 451 62
Plants	H. I. Virgin	32:451-63
Blue Light Effects on Respiration	W. Kowallik	33:51-72
Oxygen Activation and Oxygen Toxicity	E. F. Elstner	33:73-96
Photosystem I	R. Malkin	33:455-79
The Cyanide-Resistant, Alternative Path in		
Higher Plant Respiration	G. G. Laties	33:519-55
Small Molecules		
Amino Acid Metabolism	B. J. Miffin, P. J. Lea	28:299-329
	D. J. IVALIBIN, 4 . J. LICH	29.277-327
δ-Aminolevulinic Acid in Plants: Its		
Biosynthesis, Regulation, and Role in		
Plastid Development	S. I. Beale	29:95-120
The Metabolism of the Gibberellins	P. Hedden, J. MacMillan, B. O.	
	Phinney	29:149-92

742 CHAPTER TITLES

THE CHAILER THEES		
The Physiology of Metal Toxicity in Plants	C. D. Foy, R. L. Chaney, M. C.	
	White	29:511-66
Enzymic Controls in the Biosynthesis of		
Lignin and Flavonoids The Role of Lipid-Linked Saccharides in the	K. Hahlbrock, H. Grisebach	30:105-30
	A. D. Elbein	30:239-72
Biosynthesis of Complex Carbohydrates		
Biosynthesis of Terpenoids	T. W. Goodwin	30:369-404
Photocontrol of Carotenoid Biosynthesis A Descriptive Evaluation of Quantitative Histochemical Methods Based on Pyridine	R. W. Harding, W. Shropshire, Jr.	31:217-38
Nucleotides	W. H. Outlaw, Jr.	31:299-311
Cyanogenic Compounds	E. E. Conn	31:433-51
Biochemistry and Physiology of Abscisic Acid	E. E. COM	317433-31
biochemistry and Physiology of Aoscisic Acid	D. C. Walton	31:453-89
20 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		
Mechanisms of Action of Herbicides Modern Methods for Plant Growth Substance	D. E. Moreland	31:597-638
Analysis	M. L. Brenner	32:511-38
Structure, Biosynthesis, and Biodegradation of		
Cutin and Suberin Compartmentation of Nonphotosynthetic	P. E. Kolattukudy	32:539-67
Carbohydrate Metabolism	D. T. Dennis, J. A. Miernyk	33:27-50
Cellular Organization of Glycerolipid	D. 1. Dennis, J. A. Miernyk	33:21-30
Metabolism	P. G. Roughan, C. R. Slack	33:97-132
	T. S. Moore, Jr.	33:235-59
Phospholipid Biosynthesis Chemistry and Physiology of the Bound	1. S. Moore, Jr.	33:233-39
Auxins	J. D. Cohen, R. S. Bandurski	33:403-30
Macromolecules		
Ribulose 1,5-Bisphosphate	D. C. Louis I. T. Date	20.270 400
Carboxylase-Oxygenase	R. G. Jensen, J. T. Bahr	28:379-400
Heat Effects on Protein Biosynthesis	V. A. Bernstam	29:25-46
Biological Nitrogen Fixation	K. T. Shanmugam, F. O'Gara, K. Andersen, R. C. Valentine	29:263-76
Sulfated Polysaccharides in Red and Brown		
Algae	E. L. McCandless, J. S. Craigie	30:41-53
The Molecular Characterization and		
Organization of Plant Chromosomal DNA		
Sequences	R. Flavell	31:569-96
Chloroplast Proteins: Synthesis, Transport,		
and Assembly	R. J. Ellis	32:111-37
The Assimilatory Nitrate-Reducing System		
and Its Regulation	M. G. Guerrero, J. M. Vega, M.	
	Losada	32:169-204
Cell Wall Turnover in Plant Development	J. M. Labavitch	32:385-406
Phosphoenolpyruvate Carboxylase: An		02.000 100
Enzymologist's View	M. H. O'Leary	33:297-315
Regulation of the Biosynthesis and	M. II. O Lony	33.471-313
	J. Preiss	33:431-54
Degradation of Starch Phytochrome: The Protein Moiety	L. H. Pratt	33:557-82
ORGANELLES AND CELLS		
Function		
Mitochondrial Metabolite Transport	J. T. Wiskich	28:45-69
The Current Status of Cyclic AMP in Higher		
Plants	N. Amrhein	28:123-32
Phytochromes: Membranes as Possible Sites of		
Primary Action	D. Marmé	28:173-98
Pytochrome Control of Enzymes	P. Schopfer	28:223-52
Expression of Chloroplast Genomes in Higher		
Plants	S. D. Kung	28:401-37
Membrane Potentials in Photosynthesis	W. Junge	28:503-36

Regulation of Ribonucleic Acid Metabolism		
by Plant Hormones	J. V. Jacobsen	28:537-64
Physics of Turgor- and Osmoregulation	U. Zimmermann	29:121-48
Energy Coupling for Membrane Transport	R. J. Poole	29:437-60
Intracellular pH and its Regulation	F. A. Smith, J. A. Raven	30:289-311
DNA Plant Viruses	R. J. Shepherd	30:405-23
	R. K. Trench	30:485-531
The Cell Biology of Plant-Animal Symbiosis		
The Structure of Chloroplast DNA	J. R. Bedbrook, R. Kolodner	30:593-620
Physical and Chemical Basis of Cytoplasmic	** ** *	
Streaming	N. Kamiya	32:205-36
Plant Protoplasts as Physiological Tools	E. Galun	32:237-66
Electrogenic Ion Pumps	R. M. Spanswick	32:267-89
Viroids: Abnormal Products of Plant		
Metabolism	T. O. Diener	32:313-25
Phloem Structure and Function	J. Cronshaw	32:465-84
Light-Mediated Movement of Chloroplasts	W. Haupt	33:205-33
Influence of Surface Charges on Thylakoid		
Structure and Function	J. Barber	33:261-95
Mitochondrial Genome Organization and		
Expression in Higher Plants	C. J. Leaver, M. W. Gray	33:373-402
Plant Molecular Vehicles: Potential Vectors	C. J. Leaver, M. W. Gray	33.373-102
for Introducing Foreign DNA into Plants	S. H. Howell	33:609-50
for introducing Poreign DNA into Plants	S. H. HOWEII	33:009-30
Organization		
Phloem Structure and Histochemistry	R. F. Evert	28:199-222
Biochemistry and Function of Vacuoles	P. Matile	29:193-213
	R. Haselkorn	29:319-44
Heterocysts	R. Haseikorn	29:319-44
Regulatory Mechanisms in Meiotic	** ** ** **	
Crossing-over	H. Stern, Y. Hotta	29:415-36
Polysaccharide Conformation and Cell Wall		
Function	R. D. Preston	30:55-78
Microbodies in Higher Plants	H. Beevers	30:159-93
Plant Cell Fractionation	P. H. Quail	30:425-84
Phycobilisomes	E. Gantt	32:327-47
Microtubules	B. E. S. Gunning, A. R. Hardham	33:651-98
Development		
Sexual Pheromones in Algae and Fungi	G. Kochert	29:461-86
Plastid Replication and Development in the		
Life Cycle of Higher Plants	J. V. Possingham	31:113-29
Development of Nongreen Plastids	W. W. Thomson, J. M. Whatley	31:375-94
PROCEEDS OR CAND AND MILLOUE BY ANDRE		
TISSUES, ORGANS, AND WHOLE PLANTS		
Function		
Ion Transport Into the Xylem	M. G. Pitman	28:71-88
The Polar Transport of Auxin	M. H. M. Goldsmith	28:439-78
Fusicoccin: A Tool in Plant Physiology	E. Marrè	30:273-88
Quantitative Interpretation of Phloem	L. Maile	30.273-00
Translocation Data	D E U Minchia I U Tamahtan	
Translocation Data	P. E. H. Minchin, J. H. Troughton	31:191-215
CON 3.01 1.37 . 1.1 0.701 1 701 .	D	
The Mineral Nutrition of Higher Plants	D. T. Clarkson, J. B. Hanson	31:239-98
Transport and Partitioning of Nitrogenous		
Solutes	J. S. Pate	31:313-40
Infection of Legumes by Rhizobia	W. D. Bauer	32:407-49
Photosynthesis, Carbon Partitioning, and		
Yield	R. M. Gifford, L. T. Evans	32:485-509
Metabolic Responses of Mesophytes to Plant		
Water Deficits	A. D. Hanson, W. D. Hitz	33:163-203
Development		
Reaction Wood: Induction and Mechanical		
Action	B. F. Wilson, R. R. Archer	28:23-43
Dormancy in Seeds	R. B. Taylorson, S. B. Hendricks	28:331-54
Organogenesis at the Shoot Apex	W. Halperin	29:239-62

744 CHAPTER TITLES

Development of Cell Polarity	R. S. Quatrano	29:487-510
The Control of Vascular Development	T. L. Shininger	30:313-37
Biosynthesis and Action of Ethylene	M. Lieberman	30:533-91
Organogenesis—A Biophysical View	P. B. Green	31:51-82
Leaf Senescence	H. Thomas, J. L. Stoddart	31:83-111
The Establishment of Tropic Curvatures in Plants	P. D. Eiser, I. Dishu	31:131-48
	R. D. Firn, J. Digby	
Mechanisms of Control of Leaf Movements Control of Morphogenesis in In Vitro	R. L. Satter, A. W. Galston	32:83-110
Cultures	K. M. Tran Thanh Van	32:291-311
Auxin Receptors	P. H. Rubery	32:569-96
Cell Biology of Abscission	R. Sexton, J. A. Roberts	33:133-62
Genetic Approaches to Circadian Clocks	J. F. Feldman	33:583-608
POPULATION AND ENVIRONMENT		
Physiological Ecology		
The Mechanism of Salt Tolerance in		
Halophytes	T. J. Flowers, P. F. Troke, A. R.	
	Yeo	28:89-121
Comparative Photosynthesis of Sun and Shade	•••	20.05 121
Plants	N. K. Boardman	28:355-77
Secondary Compounds as Protective Agents	T. Swain	28:479-501
Plant Productivity in the Arid and Semiarid	1. Swaiii	20.475-301
Zones	R. A. Fischer, N. C. Turner	29:277-317
Physiological Aspects of Desiccation	R. A. Pischel, N. C. Turner	27.211-311
Tolerance	I D Demless	30:195-238
	J. D. Bewley	
Explanatory Models in Crop Physiology	R. S. Loomis, R. Rabbinge, E. Ng	30:339-67
Mechanisms of Salt Tolerance in		** *** **
Nonhalophytes	H. Greenway, R. Munns	31:149-90
Photosynthetic Response and Adaptation to		
Temperature in Higher Plants	J. Berry, O. Björkman	31:491-543
Stomatal Conductance and Photosynthesis Responses of Plants to Low, Nonfreezing Temperatures: Proteins, Metabolism, and	G. D. Farquhar, T. D. Sharkey	33:317–45
Acclimation	D. Graham, B. D. Petterson	33:347-72
Light Quality, Photoperception, and Plant		
Strategy	H. Smith	33:481-518
Genetics and Plant Breeding		
Environmental Interaction and		
	I. C. Murfet	28:253-78
the Genetics of Flowering	I. C. Muriet	20:233-76
Genetic Control of Photosynthesis and		****
Improving of Crop Productivity	Y. S. Nasyrov	29:215-37
Pathology and Injury		
Initial Events in Injury to Plants by Air		
Pollutants	R. L. Heath	31:395-431
Biochemical Mechanisms of Disease	R. D. Houn	31.373 431
Resistance	A. A. Bell	32:21-81
- Constitution of the Cons		22.21 01
Evolution		
Evolution of Biochemical Pathways: Evidence		
	D. J. Chapman, M. A. Ragan	31:639-78
,		
Evolution Evolution of Biochemical Pathways: Evidence from Comparative Biochemistry	D. J. Chapman, M. A. Ragan	31:6

